UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/528,823	03/20/2000	Hiroaki Sato	FUJY 17.160	6313

7590 11/16/2004

Katten Muchin Zavis Rosenman
575 Madison Avenue
New York, NY 10022-2585

EXAMINER	
CHUNG, JASON J	
ART UNIT	**PAPER NUMBER**
2611	

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

9/3

Office Action Summary	Application No.	Applicant(s)	
	09/528,823	SATO ET AL.	
	Examiner	Art Unit	
	Jason J. Chung	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 August 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-14* is/are pending in the application.

4a) Of the above claim(s) *2 and 5-14* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3 and 4* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/14/2004 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 3-4 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis (US Patent # 5,898,899) in view of Dufresne (US Patent # 4,920,533) in further view of Cunningham (US Patent # 3,944,742).

Regarding claim 3, Ellis discloses the amplifiers are on a CATV network and can have signals that go to a subscriber going upstream and downstream (column 2, lines 39-54), which

meets the limitation on at least one bi-directional amplifier provided on a CATV transmission path for connecting a CATV center station to a subscriber home.

Ellis discloses the CATV signal also contains an AC component signal that activates the amplifier with a voltage (column 3, lines 9-24; figure 2), which meets the limitation on bias voltage superposing means for superposing with a bias voltage within a bi-directional amplifier at the terminal of the at least one bi-directional amplifier, a downstream signal transmitted along a coaxial transmission path subordinate to the bi-directional amplifier at the terminal.

Ellis fails to disclose a bias current adjusting load means provided at the end of the coaxial transmission path for setting the bias current corresponding to the application of the biased voltage superposed by the bias voltage superposing means and for causing a uniform current to flow on the coaxial transmission path. As disclosed by the applicant on page 18, lines 8-14, the applicant discloses that a terminating resistor at the end of every tap-off line would cause the uniform current to flow to all coaxial connectors. Dufresne discloses the network is terminated at a matching impedance 6 in a well known manner; furthermore, as illustrated in figure 1, Dufresne discloses the terminated matching impedance 6 and a terminating impedance is also terminating at the end (illustrated to the left of splitter 5) of the splitter (column 4, lines 7-22; figure 1); impedance circuits adjusts the current of a signal, which meets the limitation on a bias current adjusting load means provided at the end of the coaxial transmission path for setting the bias current corresponding to the application of the biased voltage superposed by the bias voltage superposing means and for causing a uniform current to flow on the coaxial transmission path. It would have been obvious to one of ordinary skill in the art at the time the invention was

made to modify Ellis to include an impedance match as taught by Dufresne in order to reduce signal reflections thereby increasing the integrity of the signal.

Ellis and Dufresne are silent as to what elements are in the impedance circuit. Cunningham discloses two resistors in parallel with each other (column 8, lines 47-52), which meets the limitation on a current adjusting means is a resistance element in parallel connection to a resistance element. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ellis in view of Dufresne to have the impedance element be a resistance element in parallel with another resistance element as taught by Cunningham in order to conform with a well known circuit for controlling a signal.

2. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis in view of Dufresne in further view of Wood (US Patent # 4,268,858).

Regarding claim 4, Ellis discloses the amplifiers are on a CATV network and can have signals that go to a subscriber going upstream and downstream (column 2, lines 39-54), which meets the limitation on at least one bi-directional amplifier provided on a CATV transmission path for connecting a CATV center station to a subscriber home.

Ellis discloses the CATV signal also contains an AC component signal that activates the amplifier with a voltage (column 3, lines 9-24; figure 2), which meets the limitation on bias voltage superposing means for superposing with a bias voltage within a bi-directional amplifier at the terminal of the at least one bi-directional amplifier, a downstream signal transmitted along a coaxial transmission path subordinate to the bi-directional amplifier at the terminal.

Ellis fails to disclose a bias current adjusting load means provided at the end of the coaxial transmission path for setting the bias current corresponding to the application of the

biased voltage superposed by the bias voltage superposing means and for causing a uniform current to flow on the coaxial transmission path. As disclosed by the applicant on page 18, lines 8-14, the applicant discloses that a terminating resistor at the end of every tap-off line would cause the uniform current to flow to all coaxial connectors. Dufresne discloses the network is terminated at a matching impedance 6 in a well known manner; furthermore, as illustrated in figure 1, Dufresne discloses the terminated matching impedance 6 and a terminating impedance is also terminating at the end (illustrated to the left of splitter 5) of the splitter (column 4, lines 7-22; figure 1); impedance circuits adjusts the current of a signal, which meets the limitation on a bias current adjusting load means provided at the end of the coaxial transmission path for setting the bias current corresponding to the application of the biased voltage superposed by the bias voltage superposing means and for causing a uniform current to flow on the coaxial transmission path. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ellis to include an impedance match as taught by Dufresne in order to reduce signal reflections thereby increasing the integrity of the signal.

Ellis and Dufresne are silent as to what elements are in the impedance circuit. Wood discloses a capacitor and a resistor in parallel (column 8, lines 16-20), which meets the limitation on a current adjusting means is a capacitor in parallel connection to a resistance element. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ellis in view of Dufresne to have the impedance element be a capacitor element in parallel with another resistance element as taught by Wood in order to conform with a well known circuit for controlling a signal.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason J. Chung whose telephone number is (703) 305-7362. The examiner can normally be reached on M-F, 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant can be reached on (703) 305-4755. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JJC

CHRIS GRANT
PRIMARY EXAMINER